

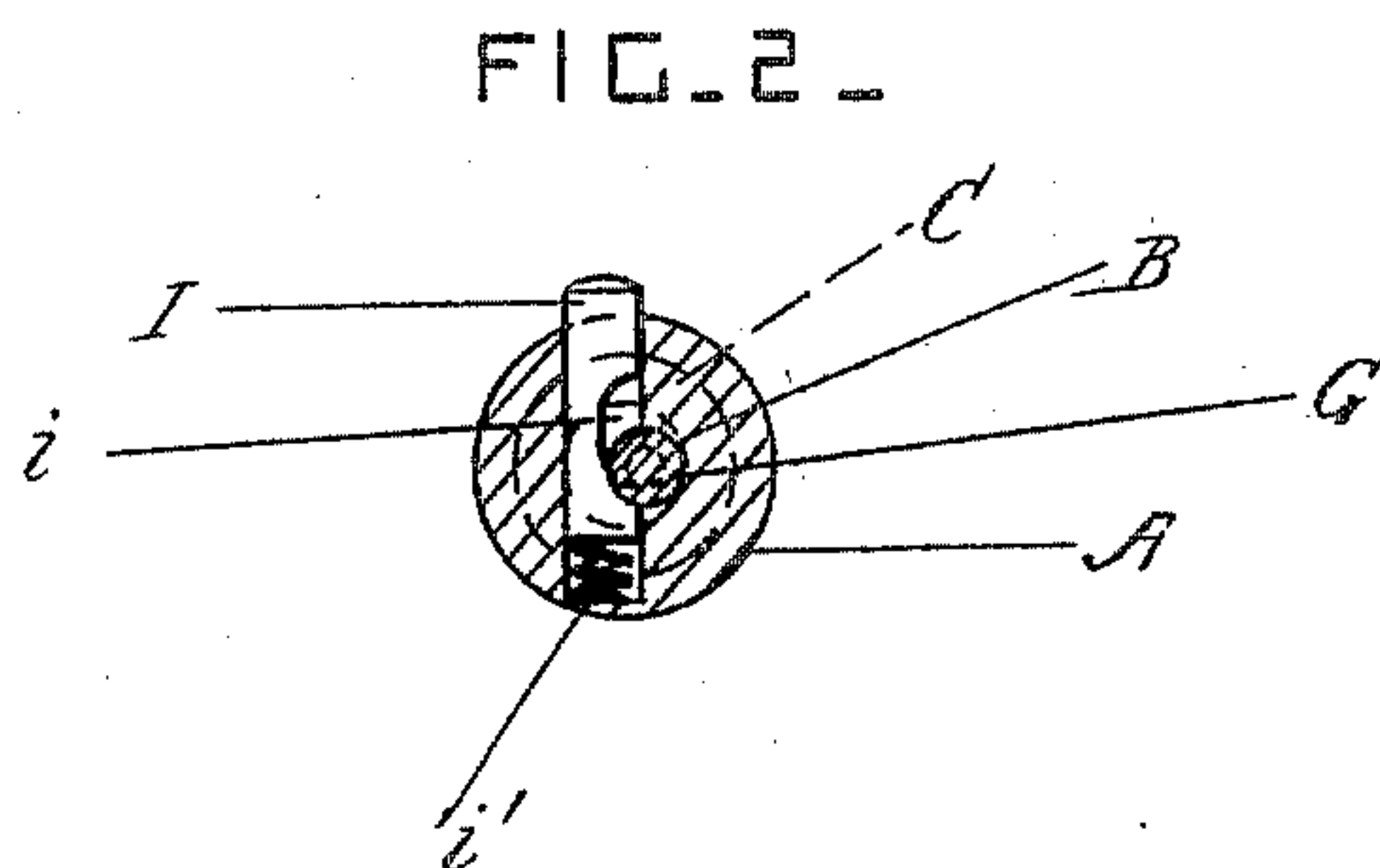
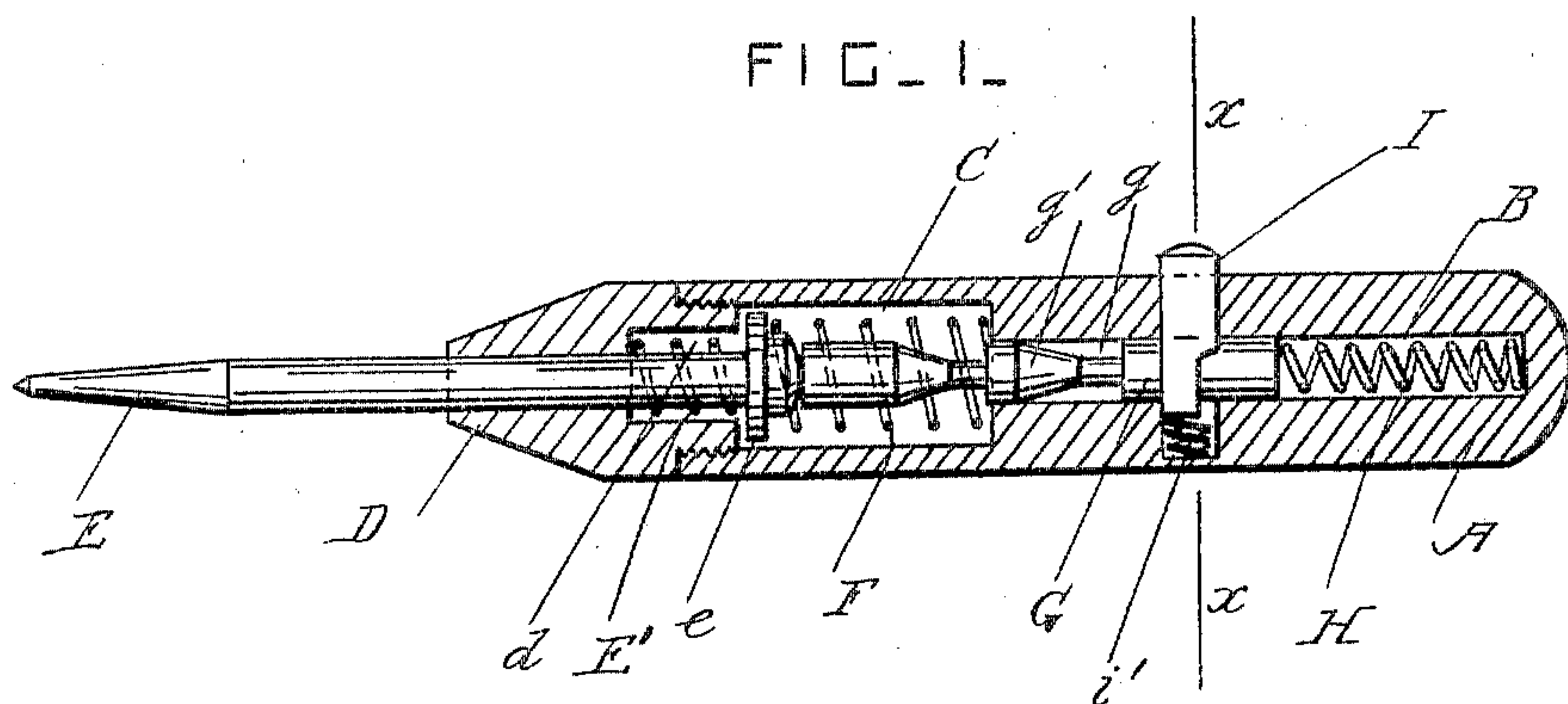
No. 797,824.

PATENTED AUG. 22, 1905.

C. SEITZ.

CENTER PUNCH.

APPLICATION FILED JAN. 17, 1905.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES SEITZ, OF ALBANY, NEW YORK.

## CENTER-PUNCH.

No. 797,824.

Specification of Letters Patent.

Patented Aug. 22, 1905.

Application filed January 17, 1905. Serial No. 241,426.

*To all whom it may concern:*

Be it known that I, CHARLES SEITZ, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Center-Punches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to center-punches; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a longitudinal section through the center-punch. Fig. 2 is a cross-section through the center-punch, taken on the line *x x* in Fig. 1.

A is the handle of the punch, which is preferably cylindrical and which preferably has its exterior surface roughened, corrugated, or fluted in any approved manner to prevent it from slipping in the fingers. This handle is provided with a cylindrical hole B for the greater part of its length and has a cylindrical chamber C at its front end. This hole and chamber are arranged axially out of line with each other, and the said hole is eccentric of the exterior of the handle. When this hole and chamber are arranged concentric with the handle, the handle has to be made somewhat larger in diameter.

D is a guide-nozzle, which is screwed into the front end portion of the chamber C and which is provided with a cylindrical recess *d* at its rear part.

E is the punching-tool, which is slidable in the guide-nozzle and which is provided with a head *e*, which is slidable in the chamber C.

E' is a buffer-spring, which is arranged in the recess *d* in front of the head *e* and which prevents the said head from striking the rear end of the guide-nozzle.

F is a return-spring for the punching-tool, which is arranged in the chamber C and which bears against the rear end of the head *e* and presses it toward the guide-nozzle.

G is a ram or hammer, which is slidable in the hole B and provided with one or more annular grooves *g* and conical portions *g'*. Any desired number of grooves may be provided.

H is a firing-spring for the ram arranged in the rear end portion of the hole B.

I is a trigger, which is slidable in a hole in the handle, crosswise of the hole B and on

the thicker side of the handle. This trigger is provided with a notch *i*, which permits the ram to slide longitudinally. A spring *i'* is arranged at the bottom of the trigger guide-hole and normally holds the trigger in engagement with one of the grooves of the ram.

The device is set by pressing the point of the punching-tool hard against any suitable object. The punching-tool and the ram are pushed backward in the handle, and the ram engages automatically with the trigger. The firing-spring is compressed according to the distance the ram is pressed back, and the trigger engages with whichever groove comes opposite to it and holds the ram in its retracted position. When the tool is taken up for use, the spring F returns the punching-tool to its normal position and the tool is ready for use. The point of the punching-tool is carefully adjusted to the place where a center hole is to be punched, a magnifying-glass being used, if necessary. The trigger is then pressed inward, so as to release the ram, which is propelled forward by its spring against the head of the punching-tool, so that said tool makes the required indentation. In this manner small indentations in very fine work can be made with great accuracy.

What I claim is—

1. In a center-punch, the combination, with a handle, of a slidable tool, two springs which normally hold the said tool in a prearranged position in the said handle, and a ram for striking the head end of the said tool also slidable in the said handle.

2. In a center-punch, the combination, with a handle, of a slidable tool having a head at one end, two springs having the said head arranged between their adjacent ends and normally holding the said tool in a prearranged position in the said handle, and a ram for striking the head end of the said tool also slidable in the said handle.

3. In a center-punch, the combination, with a handle having a longitudinal hole and a chamber arranged axially out of line with each other and the said hole being eccentric of the exterior of the handle, of a guide-nozzle secured at the front end of the said handle, a punching-tool slidable in the said nozzle, a spring arranged in the said chamber and pressing the said tool forwardly, a ram slidable in the said hole and provided with a groove, a firing-spring in the said hole behind the ram, and a catch or trigger slidable crosswise of the said hole in the thicker side of the said



handle and normally engaging with the said groove in the ram.

4. In a center-punch, the combination, with a handle, and a guide-nozzle secured to the front end portion of the said handle and provided with a recess in its rear part, of a punching-tool slidable in the said guide-nozzle and having a head at its rear end, a buffer-spring arranged in the said recess in front of the said head, a spring-pressed ram slidable in the said handle and arranged to strike the said head, and a catch for holding the said ram in its retracted position.

5. In a center-punch, the combination, with a handle having a longitudinal hole and a chamber, and a guide-nozzle secured at the front end of the said chamber and closing it, of a punching-tool slidable in the said guide-nozzle and provided with a head at its rear end, a buffer-spring between the said head and guide-nozzle, a return-spring arranged in the

said chamber and pressing the said head forward, a spring-pressed ram slidable in the said hole, and a catch for holding the said ram in its retracted position.

6. In a center-punch, the combination, with a handle, of a punching-tool slidable in the said handle, a spring-pressed ram for striking the said tool also slidable in the said handle and provided with annular grooves and conical portions, and a spring-pressed trigger slidable in a hole in the handle crosswise of the said ram and provided with a notch which permits the ram to be projected forward in the said handle.

In testimony whereof I have affixed my signature in the presence of two witnesses.

CHARLES SEITZ.

Witnesses:

FRED. A. DEMONT,  
ALEX. H. COCKBURN.